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### **REMARKS**

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

### **Status of Claims**

Claims **50-60** are pending in the application.

Claims **50-58** have been rejected.

Claims **50-55** have been amended in this submission.

Claims **59** and **60** are newly added in this submission.

### **Support for New and Amended Claims**

Support for the new and amended claims may be found throughout the specification of the present application, including at paragraphs [0063]-[0064] of the application as published, reproduced below:

[0063] FIG. 2 illustrates a simplified circuit for a monitor 18 of a physiological parameter (hereinafter "monitor 18"). This monitor 18 may also be referred to as a "probe" or "pill". In the particular embodiment illustrated in FIG. 2, pH is the physiological parameter to be sensed, and it is detected by a transducer 110, which comprises a pH sensor and preferably also a reference sensor. In the present invention, a monitoring transducer (hereinafter "transduced") can be any transducer that senses a physiological parameter and furnishes a signal one of whose electrical characteristics, such as current or voltage, is proportional to the measured physiological parameter.

[0064] Although a pH sensor is described here those skilled in the art will appreciate that a sensor of any of a variety of other physiological

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parameters, such as pressure or temperature, can be detected and monitored. Sometimes, temperature and/or pressure will be sensed and transduced together with pH, in order to adjust the pH readings and make them more accurate, or to supply additional data helpful in the analysis of the patient's condition. In addition, the concentration of ions or other solutes present in body fluids can be detected and analyzed using this invention. For example, ions such as sodium, potassium, calcium, magnesium, chloride, bicarbonate, or phosphate may be measured. Other solutes whose concentrations in body fluids are of importance and may be measured by the present invention include, among others, glucose, bilimbin (total, conjugated, or unconjugated), creatinine, blood urea nitrogen, urinary nitrogen, renin, and angiotensin. Any combination of two or more of the preceding parameters may be sensed by the transducer 110. For any physiological parameter sensed and transduced by means of a transducer, a reference sensor may or may not be required.

Accordingly, Applicants respectfully assert that all pending claims are supported by the written description of the present application.

## **CLAIM REJECTIONS**

### **35 U.S.C. § 112 Rejections**

In the final Office action, the Examiner rejected claims 50-58 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description specification. Specifically, the Examiner stated that it does not appear that Applicants' disclosure provides support for "[each of] the plurality of sensors is capable of independently measuring a physiological parameter indicative of gastroesophageal reflux different from other physiological parameters indicative of gastroesophageal reflux measured independently by other sensors" as recited by independent claim 50. In light of the amendments to claim 50, it is respectfully submitted that the rejection is moot.

The Examiner stated that it is unclear what is meant by "other sensors" and thus in the rejection it was assumed that the "other sensors" are external sensors. In light of the amendments to claim 50, it is respectfully submitted that the rejection is moot.

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### 35 U.S.C. § 103 Rejections

In the Office action, the Examiner rejected claims 50-51, 55 and 58 under 35 U.S.C. § 103(a), as being unpatentable over Stuebe et al. (US Patent No. 5,117,827) in view of Reichstein (US Patent No. 4,632,119), further in view of Steffel et al. (US Patent No. 4,326,535), and even further in view of Ishikawa et al. (US Patent No. 6,398,710). Applicants traverse the rejection for at least the reasons that follow.

First, none of the Stuebe, Reichstein and Steffel references teach or suggest an implantable sensor. As clearly shown in Stuebe (Fig. 6A, item 23), Reichstein (Fig. 2, item 16), and Steffel (Fig. 1, item 16), these references do not teach or suggest a housing or sensors adapted to be implanted in the body of a patient. Rather, as taught by Stuebe, Reichstein and Steffel, a catheter or other means to which a sensor is coupled are used in order to position and keep the sensor at a specific location.

In contrast, according to the present application, cumbersome means such as a catheter are avoided, and the claims recite an implantable housing including sensors:

Thus, there remains a need for an ambulatory system that avoids the use of an indwelling nasoesophageal catheter during the assessment of esophageal pH and other physiological parameters to detect gastroesophageal reflux. (Application as published, para. [0014], emphasis added).

This feature of the pending claims is neither disclosed nor obvious based on the cited references. The Examiner's citation of the Ishikawa reference is further unavailing. The Ishikawa reference discloses a "radiation dosimetry system using miniature implanted transponder balls" (Abstract). The Ishikawa reference does not disclose a pH sensor, or any sensor, for that matter. The Ishikawa reference in fact bears no relation whatsoever to the Stuebe, Reichstein and Steffel references, and there would have been no reason for one of ordinary skill in the art of in vivo sensing to look to a radiation dosimetry system to solve any particular problem. Therefore, the Examiner's rejection based on Stuebe, Reichstein and Steffel in combination with the Ishikawa reference is improper.

In addition, the cited references do not disclose "a plurality of sensors. . . , wherein each of the plurality of sensors is capable of independently measuring a different respective physiological parameter indicative of gastroesophageal reflux and wherein said monitoring

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device periodically transmits a signal indicative of the value of the respective physiological parameter measured by each of the plurality of sensors,” as recited in claim 50 as amended.

Accordingly, claim 50, and claims 51-60, which depend therefrom, are allowable over the cited references.

In addition to the above discussion of claim 50, newly added claims 59 and 60 are not disclosed or obvious in view of the cited references.

Claim 59 recites that the plurality of sensors include a pH monitor and an auxiliary sensor, wherein the auxiliary sensor is to measure an auxiliary physiological parameter that is not a pH parameter, wherein the receiver is configured to receive a pH reading from the pH sensor and to adjust the pH reading based on the measured value of the physiological parameter.

Claim 60 recites that the auxiliary physiological parameter is selected from the group consisting of: an ion concentration, a temperature, and a pressure.

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In view of the foregoing amendments and remarks, the pending claims 50-60 are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

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